

Application Serial No. 10/625,465
Attorney's Docket No.: 07319-008007

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Previously presented) A method, comprising:

receiving, in a stage lighting lamp which produces light to be transmitted to a target, a value of a parameter from the group of parameters consisting of a movement of an optical element, a movement of a color changer, a movement of a light shaping device, or a movement of an iris diaphragm, which value indicates an amount of movement for the parameter;

dividing said amount of movement into an incremental amount of movement, which will each be carried out in a specified time; and

outputting movement signals at each of a plurality of specified times corresponding to said amounts of movement determined in said dividing.

3. (Previously presented) A method as in claim 2, wherein each of said incremental amounts of movement corresponds to the same amount of movement.

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4. (Previously presented) A method as in claim 2, wherein at least one of said incremental amounts of movement is different than another of said incremental amount of movement.

5. (Previously presented) A method as in claim 4, wherein said amount of movement causes said movement to occur according to a sinusoidal profile.

6. (Previously presented) A method as in claim 2, wherein said dividing comprises determining a specified period at which said incremental amount of movement will be updated, determining an incremental amount of movement that is necessary in each specified period, and updating said incremental amount of movement for said each specified period.

7. (Previously presented) A method as in claim 6, wherein said specified period is milliseconds.

8. (Previously presented) A method as in claim 6, wherein said dividing further comprises maintaining a travel variable representing a total amount of movement, incrementing said travel variable by said amount, and terminating said movement when said travel variable reaches a specified amount.

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9. (Previously presented) A method as in claim 2, wherein said dividing and outputting is controlled by a main processor.

10. (Previously presented) A method as in claim 2, wherein said parameter comprises a parameter for multiple lamps, and further comprising outputting movement signals which controls each of said multiple lamps in a synchronized way.

11. (Previously presented) An apparatus comprising:
a lighting unit, which produces an output light beam, and is remotely controllable from a remote console;
a processor, associated with said lighting unit, and operating to receive a control for movement of a lighting control parameter, which is a parameter from the group of parameters consisting of a movement of an optical element, a movement of a color changer, a movement of a light shaping device, or a movement of a diaphragm, and to divide said control into a divided control unit representing an amount of movement for each of said parameters which will occur at each of a plurality of times.

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12. (Currently amended) An apparatus as in claim 11, wherein said movement of an optical element is a ~~lands~~ lens movement command.

13. (Previously presented) An apparatus as in claim 11, wherein each of said divided control units represents a same amount of movement in each of a plurality of same intervals of time.

14. (Previously presented) An apparatus as in claim 11, wherein at least one of said divided control units represents a different amount of movement than for another of said divided control units.

15. (Previously presented) An apparatus as in claim 14, wherein said amounts of movement causes said movement to occur according to a sinusoidal profile.

16. (Previously presented) An apparatus as in claim 11, wherein said processor divides the movement into a plurality of update periods, each update period being multiple milliseconds, and produces output signals at each of said update periods which cause a controlled unit to move.

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17. (Previously presented) An apparatus as in claim 16, wherein said processor maintains a travel parameter, which represents a total amount of travel which has occurred so far.

18. (Previously presented) An apparatus as in claim 11, wherein said processor receives said control and produces a plurality of outputs which control a plurality of units to carry out said movement in a synchronized way.

19. (Previously presented) An apparatus as in claim 11, further comprising a controller, producing a plurality of outputs for a plurality of different units representing synchronized control of said different units, each unit including a processor, which controls according to at least one of said plurality of outputs.

20. (Previously presented) A lighting control method, comprising:

receiving a control which commands movement of a parameter associated with projection of light;

determining a time over which said control should be carried out and dividing said control into a plurality of divided units, each of said units representing an amount of

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movement which should be carried out in a specified divided time; and

outputting signals at each of said specified divided times commanding movement at each of said specified divided times.

21. (Previously presented) A method as in claim 20, wherein each of said divided units represents a same amount of movement.

22. (Previously presented) A method as in claim 20, wherein at least one of said divided units represents a different amount of movement than another of said divided units.

23. (Previously presented) A method as in claim 20, wherein said parameter is a parameter commanding movement of a light shape alteration.

24. (Previously presented) A method as in claim 20, wherein said parameter is a parameter commanding changing of a color of light which is projected.

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25. (Previously presented) A method as in claim 20, wherein said parameter is a parameter commanding changing of a size of a diaphragm.

26. (Previously presented) A method as in claim 20, wherein said parameter is a parameter which changes of focusing of light by a lens.

27. (Previously presented) A method as in claim 20, wherein said output signals are output to a plurality of different lights and are substantially synchronized with one another.

28. (Previously presented) A method as in claim 20, wherein each of said specific divided times occur multiple milliseconds apart.

29. (Previously presented) A method as in claim 20, wherein said parameter is a parameter that changes an amount of movement by said light.

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30. (Previously presented) A method as in claim 20, further comprising maintaining a variable which indicates a total amount of movement at a current time.

31. (Previously presented) A system, comprising:
a processor that receives a control that commands movement of a parameter associated with projection of light, and a control that indicates a time for said movement, said processor operating to produce a plurality of divided movement amounts, each of said movement amounts representing a movement which should be carried out at a specific divided time; and
an output signal terminal, which provides an output signal that controls said movement at said divided times.

32. (Previously presented) A system as in claim 31, wherein said processor produces each of said divided units which represents the same amount of movement.

33. (Previously presented) A system as in claim 31, wherein said processor produces at least one of said divided units representing a different amount of movement than another of said divided units.

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34. (Previously presented) A system as in claim 31, wherein said control represents movement of a light shape alteration.

35. (Previously presented) A system as in claim 31, wherein said control represents movement of a gobo.

36. (Previously presented) A system as in claim 31, wherein said parameter represents movement of a color changing device.

37. (Previously presented) A system as in claim 31 wherein said parameter represents changing a size of a diaphragm.

38. (Previously presented) A system as in claim 31, wherein said parameter represents movement of a lens.